BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 4000000.00

Name of Work: Improvements to main and cross road at Bharth gowda layout and GKVK layout in kempegowda ward no-01 of yelahanka Sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	cum							
	for road								
	bad reaches Bharath gowda layout main road		1	5.00	1.20	0.30	1.80		
			1	3.60	2.20	0.30	2.38		
			1	3.50	1.80	0.30	1.89		
			1	2.00	3.50	0.30	2.10		
			1	3.20	3.20	0.30	3.07		
			1	3.80	3.80	0.30	4.33		
			1	6.60	4.20	0.30	8.32		
			1	16.00	1.50	0.30	7.20		
	bad reaches Bharath gowda layout 1st cross road		1	5.00	2.50	0.30	3.75		
			1	4.00	2.50	0.30	3.00		
			1	3.00	1.50	0.30	1.35		
			1	7.00	1.50	0.30	3.15		
			1	6.00	3.60	0.30	6.48		
			1	8.00	2.90	0.30	6.96		
	bad reaches Bharath gowda layout 2nd cross road		1	5.00	1.20	0.30	1.80		
			1	3.60	2.20	0.30	2.38		
			1	3.50	1.80	0.30	1.89		
	BWSSB UGD cutting portion		1	90.00	2.00	0.30	54.00		
							115.84	125.59	14548.46
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							

2/	**Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing** coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. Page No.153. Item No.20.6	cum							
	bad reaches Bharath gowda layout main road		1	5.00	1.20	0.15	0.90		
			1	3.60	2.20	0.15	1.19		
			1	3.50	1.80	0.15	0.95		
			1	2.00	3.50	0.15	1.05		
			1	3.20	3.20	0.15	1.54		
			1	3.80	3.80	0.15	2.17		
			1	6.60	4.20	0.15	4.16		
			1	16.00	1.50	0.15	3.60		
	bad reaches Bharath gowda layout 1st cross road		1	5.00	2.50	0.15	1.88		
			1	4.00	2.50	0.15	1.50		
			1	3.00	1.50	0.15	0.68		
			1	7.00	1.50	0.15	1.58		
			1	6.00	3.60	0.15	3.24		
			1	8.00	2.90	0.15	3.48		
	bad reaches Bharath gowda layout 2nd cross road		1	5.00	1.20	0.15	0.90		
			1	3.60	2.20	0.15	1.19		
			1	3.50	1.80	0.15	0.95		
	BWSSB UGD cutting portion		1	90.00	2.00	0.15	27.00		
							57.92	**1855.00**	**107443.46**
	Basic Rate	1750.00							
	Area Weightage 6%	105.00							
	Grand Total	1855.00							
3/	KSRRB M400-17. **Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications** including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No. 155. Item No.20.18	cum							
	Bharath gowda layout main road		1	130.00	7.00	0.15	136.50		
	Bharath gowda layout 1st cross road		1	170.00	7.00	0.15	178.50		
	Bharath gowda layout 2nd cross road		1	170.00	7.00	0.15	178.50		
							493.50	**2001.28**	**987631.68**

	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Grand Total	2001.28							
4	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No.158 I.No.	sqm							
	Bharath gowda layout main road		1	130.00	7.00		910.00		
	Bharath gowda layout 1st cross road		1	170.00	7.00		1190.00		
	Bharath gowda layout 2nd cross road		1	170.00	7.00		1190.00		
							3290.00	28.62	94159.80
	Basic Rate	27.00							
	Area Weightage 6%	1.62							
	Grand Total	28.62							
5	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 Page No.158. Item No.21.2	Sqm							
	Bharath gowda layout main road		1	130.00	7.00		910.00		
	Bharath gowda layout 1st cross road		1	170.00	7.00		1190.00		
	Bharath gowda layout 2nd cross road		1	170.00	7.00		1190.00		
							3290.00	5.30	17437.00
	Basic Rate	5.00							
	Area Weightage 6%	0.30							
	Grand Total	5.30							
6	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum							

	DBM								
	Bharath gowda layout main road		1	130.00	7.00	0.05	45.50		
	Bharath gowda layout 1st cross road		1	170.00	7.00	0.05	59.50		
	Bharath gowda layout 2nd cross road		1	170.00	7.00	0.05	59.50		
							164.50	**6789.30**	**1116839.85**
	Basic Rate	6405.00							
	Area Weightage 6%	384.30							
	Grand Total	6789.30							
7	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm							
	Bharath gowda layout main road		1	130.00	7.00		910.00		
	Bharath gowda layout 1st cross road		1	170.00	7.00		1190.00		
	Bharath gowda layout 2nd cross road		1	170.00	7.00		1190.00		
							3290.00	12.72	41848.80
	Basic Rate	12.00							
	Area Weightage 6%	0.72							
	Grand Total	12.72							
8	**Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with** bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12	Cum							
	BC								
	Bharath gowda layout main road		1	130.00	7.00	0.04	36.40		
	Bharath gowda layout 1st cross road		1	170.00	7.00	0.04	47.60		

	Bharath gowda layout 2nd cross road		1	170.00	7.00	0.04	47.60		
							131.60	7753.90	1020413.24
	Basic Rate	7315.00							
	Area Weightage 6%	438.90							
	Grand Total	7753.90							
9	Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 em x 45 cm x 60 em, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos							
	Bharath gowda layout main road		2	65.00			130.00		
	Bharath gowda layout 1st cross road		2	85.00			170.00		
	Bharath gowda layout 2nd cross road		2	85.00			170.00		
							470.00	137.80	64766.00
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	137.80							
10	KSRRB M800-4. Direction and Place Identification Signs / Project Information Board with size more than 0.9 sqm Size Board:-Providing and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing. Page No.180. Item No.24.4	Sqm							
			3				3.00		
							3.00	7567.34	22702.02
	Basic Rate	7139.00							
	Area Weightage 6%	428.34							
	Grand Total	7567.34							

11	KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182 Item 24.15	Sqm							
	Bharath gowda layout main road		1	87.00	0.10		8.70		
			2	130.00	0.15		39.00		
	Bharath gowda layout 1st cross road		1	113.00	0.10		11.30		
			2	170.00	0.15		51.00		
	Bharath gowda layout 2nd cross road		1	113.00	0.10		11.30		
			2	170.00	0.15		51.00		
							172.30	454.74	78351.70
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							
						Total construction cost			3566142.00
						GST 12%			427937.04
									5920.95
26	Miscellaneous charges							Total	4000000.00

(Rupees Forty lakh Only)

CERTIFICATE

1 The work spot has been inspected and the work is found necessary
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

Administrative Sanction for Rs. 40.00.lakhs
.....forty.....lakhs.....only.....
.....
is accorded under head .....P-3926.....
.....MU.....16.....finance.....works.....
.....
Registered as CE No. ..... Subject
to conditions contained in enclosed memo
No. CE/YNK/AS/107/2019-20 Dt: 7/3/2020

Executive Engineer

Technical Sanction
Accorded For R.s.40.00.lakhs
Head of A/C. P3926
CER NO : 303A Dt: 10-03-2020

[TA] CE (YNK)

Name of work:- Improvements Road main and Cross Roads at Bharathgouda. Layout and G.K.V.K. Layout in Kempegouda. ward No 1 of yelahanka Sub ಯೂ.